

important in the formulation of the cost reimbursement principles.

(h) An alternative to the relative number of days of care as a basis for apportioning costs is the relative amount of charges billed by the provider for services to patients. The amount of charges is the basis upon which the cost of hospital care is distributed among patients who pay directly for the services they receive. Payment for services on the basis of charges applies generally under insurance programs in which individuals are indemnified for incurred expenses, a form of health insurance widely held throughout the United States. Also, charges to patients are commonly a factor in determining the amount of payment to hospitals under insurance programs providing service benefits, many of which pay "costs or charges, whichever is less" and some of which pay exclusively on the basis of charges. In all of these instances, the provider's own charge structure and method of itemizing services for the purpose of assessing charges is utilized as a measure of the amount of services received and as the basis for allocating responsibility for payment among those receiving the provider's services.

(i) An increasing number of third-party purchasers who pay for services on the basis of cost are developing methods that utilize charges to measure the amount of services for which they have responsibility for payment. In this approach, the amount of charges for such services as a proportion of the provider's total charges to all patients is used to determine the proportion of the provider's total costs for which the third-party purchaser assumes responsibility. The approach is subject to numerous variations. It can be applied to the total of charges for all services combined or it can be applied to components of the provider's activities for which the amount of costs and charges are ascertained through a breakdown of data from the provider's accounting records.

(j) For the application of the approach to components, which represent types of services, the breakdown of total costs is accomplished by "cost-finding" techniques under which indirect costs and nonrevenue activities

are allocated to revenue producing components for which charges are made as services are furnished.

§ 413.53 Determination of cost of services to beneficiaries.

(a) *Principle.* Total allowable costs of a provider will be apportioned between program beneficiaries and other patients so that the share borne by the program is based upon actual services received by program beneficiaries. The methods of apportionment are defined as follows:

(1) *Departmental method*—(i) *Methodology.* Except as provided in paragraph (a)(1)(ii) of this section with respect to the treatment of the private room cost differential for cost reporting periods starting on or after October 1, 1982, the ratio of beneficiary charges to total patient charges for the services of each ancillary department is applied to the cost of the department; to this is added the cost of routine services for program beneficiaries, determined on the basis of a separate average cost per diem for general routine patient care areas as defined in paragraph (b) of this section, taking into account, in hospitals, a separate average cost per diem for each intensive care unit, coronary care unit, and other intensive care type inpatient hospital units.

(ii) *Exception: Indirect cost of private rooms.* For cost reporting periods starting on or after October 1, 1982, except with respect to a hospital receiving payment under part 412 of this chapter (relating to the prospective payment system), the additional cost of furnishing services in private room accommodations is apportioned to Medicare only if these accommodations are furnished to program beneficiaries, and are medically necessary. To determine routine service cost applicable to beneficiaries—

(A) Multiply the average cost per diem (as defined in paragraph (b) of this section) by the total number of Medicare patient days (including private room days whether or not medically necessary);

(B) Add the product of the average per diem private room cost differential

(as defined in paragraph (b) of this section) and the number of medically necessary private room days used by beneficiaries; and

(C) Effective October 1, 1990, do not include private rooms furnished for SNF-type and NF-type services under the swing-bed provision in the number of days in paragraphs (a)(1)(ii)(A) and (B) of this section.

(2) *Carve-out method*—(i) The carve-out method is used to allocate hospital inpatient general routine service costs in a participating swing-bed hospital, as defined in § 413.114(b). Under this method, effective for services furnished on or after October 1, 1990, the reasonable costs attributable to the inpatient routine SNF-type and NF-type services furnished to all classes of patients are subtracted from total inpatient routine service costs before computing the average cost per diem for inpatient routine hospital care.

(ii) The cost per diem attributable to the routine SNF-type services covered by Medicare is based on the regional Medicare swing-bed SNF rate in effect for a given calendar year, as described in § 413.114(c). The Medicare SNF rate applies only to days covered and paid as Medicare days. When Medicare coverage runs out, the Medicare rate no longer applies.

(iii) The cost per diem attributable to all non-Medicare swing-bed days is based on the average statewide Medicaid NF rate for the prior calendar year, adjusted to approximate the average NF rate for the current calendar year.

(iv) The sum of total Medicare SNF-type days multiplied by the cost per diem attributable to Medicare SNF-type services and the total NF-type days multiplied by the cost per diem attributable to all non-Medicare days is subtracted from total inpatient general routine service costs. The cost per diem for inpatient routine hospital care is computed based on the remaining inpatient routine service costs.

(3) *Cost per visit by type-of-service method—HHAs*. For cost reporting periods beginning on or after October 1, 1980, all HHAs must use the cost per visit by type-of-service method of apportioning costs between Medicare and non-Medicare beneficiaries. Under this

method, the total allowable cost of all visits for each type of service is divided by the total number of visits for that type of service. Next, for each type of service, the number of Medicare covered visits is multiplied by the average cost per visit just computed. This represents the cost Medicare will recognize as the cost for that service, subject to cost limits published by CMS (see § 413.30).

(b) *Definitions*. As used in this section—

Ancillary services means the services for which charges are customarily made in addition to routine services.

Apportionment means an allocation or distribution of allowable cost between the beneficiaries of the Medicare program and other patients.

Average cost per diem for general routine services means the following:

(1) For cost reporting periods beginning on or after October 1, 1982, subject to the provisions on swing-bed hospitals, the average cost of general routine services net of the private room cost differential. The average cost per diem is computed by the following methodology:

(i) Determine the total private room cost differential by multiplying the average per diem private room cost differential determined in paragraph (c) of this section by the total number of private room patient days.

(ii) Determine the total inpatient general routine service costs net of the total private room cost differential by subtracting the total private room cost differential from total inpatient general routine service costs.

(iii) Determine the average cost per diem by dividing the total inpatient general routine service cost net of private room cost differential by all inpatient general routine days, including total private room days.

(2) For swing-bed hospitals, the amount computed by—(i) Subtracting the routine costs associated with Medicare SNF-type days and non-Medicare NF-type days from the total allowable inpatient cost for routine services (excluding the cost of services provided in intensive care units, coronary care units, and other intensive care type inpatient hospital units and nursery costs); and

(ii) Dividing the remainder (excluding the total private room cost differential) by the total number of inpatient hospital days of care (excluding Medicare SNF-type days and non-Medicare NF-type days of care, days of care in intensive care units, coronary care units, and other intensive care type inpatient hospital units; and newborn days; but including total private room days).

Average cost per diem for hospital intensive care type units means the amount computed by dividing the total allowable costs for routine services in each of these units by the total number of inpatient days of care furnished in each of these units.

Average per diem private room cost differential means the difference in the average per diem cost of furnishing routine services in a private room and in a semi-private room. (This differential is not applicable to hospital intensive care type units.) (The method for computing this differential is described in paragraph (c) of this section.)

Charges means the regular rates for various services that are charged to both beneficiaries and other paying patients who receive the services. Implicit in the use of charges as the basis for apportionment is the objective that charges for services be related to the cost of the services.

Intensive care type inpatient hospital unit means a hospital unit that furnishes services to critically ill inpatients. Examples of intensive care type units include, but are not limited to, intensive care units, trauma units, coronary care units, pulmonary care units, and burn units. Excluded as intensive care type units are post-operative recovery rooms, postanesthesia recovery rooms, maternity labor rooms, and subintensive or intermediate care units. (The unit must also meet the criteria of paragraph (d) of this section.)

Nursing facility (NF)-type services, formerly known as ICF and SNF-type services, are routine services furnished by a swing-bed hospital to Medicaid and other non-Medicare patients. Under the Medicaid program, effective October 1, 1990, facilities are no longer certified as SNFs or ICFs but instead are certified only as NFs and can pro-

vide services as defined in section 1919(a)(1) of the Act.

Skilled nursing facility (SNF)-type services are routine services furnished by a swing-bed hospital that would constitute extended care services if furnished by an SNF. SNF-type services include routine SNF services furnished in the distinct part SNF of a hospital complex that is combined with the hospital general routine service area cost center under § 413.24(d)(5). Effective October 1, 1990, only Medicare covered services are included in the definition of SNF-type services.

Ratio of beneficiary charges to total charges on a departmental basis means the ratio of charges to beneficiaries of the Medicare program for services of a revenue-producing department or center to the charges to all patients for that center during an accounting period. After each revenue-producing center's ratio is determined, the cost of services furnished to beneficiaries of the Medicare program is computed by applying the individual ratio for the center to the cost of the related center for the period.

Routine services means the regular room, dietary, and nursing services, minor medical and surgical supplies, and the use of equipment and facilities for which a separate charge is not customarily made.

(c) *Method for computing the average per diem private room cost differential.* Compute the average per diem private room cost differential as follows:

(1) Determine the average per diem private room charge differential by subtracting the average per diem charge for all semi-private room accommodations from the average per diem charge for all private room accommodations. The average per diem charge for private room accommodations is determined by dividing the total charges for private room accommodations by the total number of days of care furnished in private room accommodations. The average per diem charge for semi-private accommodations is determined by dividing the total charges for semi-private room accommodations by the total number of days of care furnished in semi-private accommodations.

(2) Determine the inpatient general routine cost to charge ratio by dividing total inpatient general routine service cost by the total inpatient general routine service charges.

(3) Determine the average per diem private room cost differential by multiplying the average per diem private room charge differential determined in paragraph (c)(1) of this section by the ratio determined in paragraph (c)(2) of this section.

(d) *Criteria for identifying intensive care type units.* For purposes of determining costs under this section, a unit will be identified as an intensive care type inpatient hospital unit only if the unit—

(1) Is in a hospital;

(2) Is physically and identifiably separate from general routine patient care areas, including subintensive or intermediate care units, and ancillary service areas. There cannot be a concurrent sharing of nursing staff between an intensive care type unit and units or areas furnishing different levels or types of care. However, two or more intensive care type units that concurrently share nursing staff can be reimbursed as one combined intensive care type unit if all other criteria are met. Float nurses (nurses who work in different units on an as-needed basis) can be utilized in the intensive care type unit. If a float nurse works in two different units during the same eight hour shift, then the costs must be allocated to the appropriate units depending upon the time spent in those units. The hospital must maintain adequate records to support the allocation. If such records are not available, then the costs must be allocated to the general routine services cost areas;

(3) Has specific written policies that include criteria for admission to, and discharge from, the unit;

(4) Has registered nursing care available on a continuous 24-hour basis with at least one registered nurse present in the unit at all times;

(5) Maintains a minimum nurse-patient ratio of one nurse to two patients per patient day. Included in the calculation of this nurse-patient ratio are registered nurses, licensed vocational nurses, licensed practical nurses, and nursing assistants who provide patient care. Not included are general support personnel such as ward clerks, custodians, and housekeeping personnel; and

(6) Is equipped, or has available for immediate use, life-saving equipment necessary to treat the critically ill patients for which it is designed. This equipment may include, but is not limited to, respiratory and cardiac monitoring equipment, respirators, cardiac defibrillators, and wall or canister oxygen and compressed air.

(e) *Application—(1) Departmental method: Cost reporting periods beginning on or after October 1, 1982.*

(i) The following example illustrates how costs would be determined, using only inpatient data, for cost reporting periods beginning on or after October 1, 1982, based on apportionment of—

(A) The average cost per diem for general routine services (subject to the private room differential provisions of paragraph (a)(1)(iii) of this section);

(B) The average cost per diem for each intensive care type unit;

(C) The ratio of beneficiary charges to total charges applied to cost by department.

HOSPITAL Y

Department	Charges to program beneficiaries	Total charges	Ratio of beneficiary charges to total charges	Total cost	Cost of beneficiary services
Percent					
Operating rooms	\$20,000	\$70,000	28½	\$77,000	\$22,000
Delivery rooms	0	12,000	0	30,000	0
Pharmacy	20,000	60,000	33½	45,000	15,000
X-ray	24,000	100,000	24	75,000	18,000
Laboratory	40,000	140,000	28½	98,000	28,000
Others	6,000	30,000	20	25,000	5,000
Total	110,000	412,000	.....	350,000	88,000

Centers for Medicare & Medicaid Services, HHS

\$413.53

	Total inpatient days	Total cost	Average cost per diem	Program inpatient days	Cost of beneficiary services
General routine	30,000	\$630,000	\$21	8,000	\$168,000
Coronary care unit	500	20,000	40	200	8,000
Intensive care unit	3,000	108,000	36	1,000	36,000
	33,500	758,000	.....	9,200	212,000
Total .....	.....	.....	.....	.....	300,000

(ii) The following illustrates how apportionment based on an average cost per diem for general routine services is determined.

HOSPITAL E

Facts	Private accommodations	Semi-private accommodations	Total
Total charges	\$20,000	\$175,000	\$195,000
Total days	100	1,000	1,100
Programs days	70	400	470
Medically necessary for program beneficiaries	20	.....	20
Total general routine service costs .....	.....	.....	165,000
Average private room per diem charge (\$20,000 private room charges ÷ 100 days) .....	.....	.....	¹ \$200
Average semi-private room per diem charge (\$175,000 semi-private charge ÷ 1,000 days) .....	.....	.....	¹ \$175

¹ Per diem.

Average per diem private room cost differential.

1. Average per diem private room charge differential (\$200 private room per diem—\$175, semi-private room per diem), \$25.
 2. Inpatient general routine cost/charge ratio (\$165,000 total costs ÷ \$195,000 total charges), 0.8461538.
 3. Average per diem private room cost differential (\$25 charge differential × .8461538 cost/charge ratio), \$21.15.
- Average cost per diem for inpatient general routine services.*
4. Total private room cost differential (\$21.15 average per diem cost differential × 100 private room days), \$2,115.
 5. Total inpatient general routine service costs net of private room cost differential (\$165,000 total routine cost — \$2,115 private room cost differential), \$162,885.
 6. Average cost per diem for inpatient general routine services (\$162,885 routine cost net of private room cost differential ÷ 1,100 patient days), \$148.08.

Medicare general routine service cost.

7. Total routine per diem cost applicable to Medicare (\$148.08 average cost per diem × 470 Medicare private and semi-private patient days), \$69,598.
8. Total private room cost differential applicable to Medicare (\$21.15 average per diem private room cost differential × 20 medically necessary private room days), \$423.
9. Medicare inpatient general routine service cost (\$423 Medicare private room cost differential + \$69,598 Medicare cost of general routine inpatient services), \$70,021.

(2) *Carve out method.* The following illustrates how apportionment is determined in a hospital reimbursed under the carve out method (subject to the private room differential provisions of paragraph (a)(1)(ii) of this section):

HOSPITAL K

[Determination of cost of routine SNF-type and ICF-type services and general routine hospital services¹]

Facts	Days of care		
	General routine hospital	SNF-type	ICF-type
Total days of care	2,000	400	100
Medicare days of care ...	600	300	.....
Average Medicaid rate ..	N/A	\$35	\$20
Total inpatient general routine service costs: \$250,000			

Calculation of cost of routine SNF-type services applicable to Medicare:

$$\$35 \times 300 = \$10,500$$

Calculation of cost of general routine hospital services:

Cost of SNF-type services: \$35 × 400	\$14,000
Cost of ICF-type services: \$20 × 100	2,000

Total \$16,000

Average cost per diem of general routine hospital services:

$$\$250,000 \div \$16,000 \div 2,000 \text{ days} = \$117$$

Medicare general routine hospital cost:

$$\$117 \times 600 = \$70,200$$

Total Medicare reasonable cost for general routine inpatient days:

$$\$10,500 + \$70,200 = \$80,700$$

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